What is claimed is:

1.  A network comprising:

    a first carrier network employed by a layer-1 VPN service provider;

    layer-1 VPN information created within said first carrier network;

    a second carrier network employed by a different service provider;

    layer-2 VPN information created within said second carrier network; and

    a BGP session for transmitting said layer-2 VPN information from said second
    carrier network to said first carrier network.

2.  A network as claimed in claim 1 wherein an auto-discovery mechanism for said
    second carrier network is outsourced to said first carrier network.

3.  A network as claimed in claim 2 wherein both layer-1 and layer-2 VPN auto-
    discovery are carried out within said first carrier network.

4.  A network as claimed in claim 3 wherein said first carrier network includes at least
    two provider edge devices, and a backbone separates said at least two provider
    edge devices.

5.  A network as claimed in claim 4 wherein said at least two provider edge
    devices are Layer-1 and/or GVPN-based, and said backbone includes a portion
    of the Internet.

6.  A network as claimed in claim 4 wherein said second carrier network includes a
    provider edge device that is a selected one of the following: a layer-2 VPN-based
    provider edge device, a layer-3 VPN-based provider edge device, and a layer-2
    and layer-3 VPN-based provider edge device.

7.  A method for distributing layer-2 VPN information comprising the steps of:
    using BGP sessions and a discovery mechanism of a layer-1 provider edge
    device to distribute received layer-2 VPN information to a remote layer-1

provider edge device; and

passing said layer-2 VPN information from said remote layer-1 provider edge
device to an attached layer-2 provider edge device, wherein

a discovery mechanism of said layer-1 provider edge device simplifies operations
for a layer-2 service provider.

8. A method as claimed in claim 7 further comprising the step of advertising layer-2
VPN discovery to said layer-1 provider edge device before the step of using said
BGP sessions and said discovery mechanism.

9. A method as claimed in claim 8 wherein at least one inter-carrier BGP session is
a mechanism for said advertising.

10. A method as claimed in claim 9 wherein said inter-carrier BGP session is set up
between said layer-1 provider edge device and another provider edge device that
is a selected one of the following: a layer-2 VPN-based provider edge device, and
a layer-2 and layer-3 VPN-based provider edge device.

11. A method as claimed in claim 10 wherein said another provider edge device is a
part of a provider network, and said layer-1 provider edge device is a part of a
sub-provider network.

12. A method as claimed in claim 11 wherein said layer-1 provider edge device and
said remote layer-1 provider edge device are separated by a backbone.

13. A method as claimed in claim 12 wherein said backbone includes a portion of the
Internet.

14. A method as claimed in claim 13 wherein said another provider edge device
interfaces with a VPN.

15. A network comprising:

a backbone;

at least two provider edge devices connected to and working with said backbone; and

layer-1 and layer-2 VPN information processed by one of said at least two provider edge devices,

wherein said one of the at least two provider edge devices has a discovery mechanism for distributing said layer-2 VPN information.

16. A network as claimed in claim 15 wherein said at least two provider edge devices are GVPN-based.

17. A network as claimed in claim 16 wherein said at least two provider edge devices are a part of a network of a first service provider.

18. A network as claimed in claim 17 further comprising a second service provider having its own network, said second service provider being a customer of said first service provider.

19. A network as claimed in claim 18 wherein both layer-1 and layer-2 VPN auto-discovery are carried out within said network of the first service provider.

20. A network as claimed in claim 15 wherein said backbone includes a portion of the Internet.